

### / Descriptions

KF \$))' = E GE Silicon NPN transistor in a TO-220F Plastic Package.

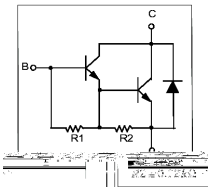
### / Features

K@() . =  
Complement to TIP127F.

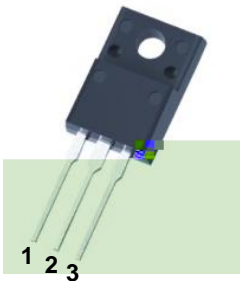
### / Applications

Medium power linear switching applications.

### / Equivalent Circuit



### / Pinning



PIN1 Base PIN 2 Collector PIN 3 Emitter

### / h<sub>FE</sub> Classifications & Marking

See Marking Instructions.

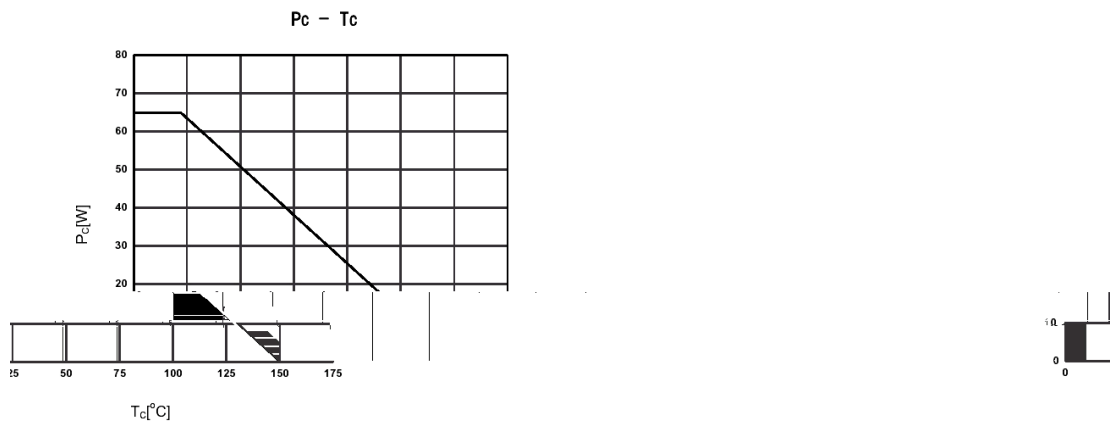
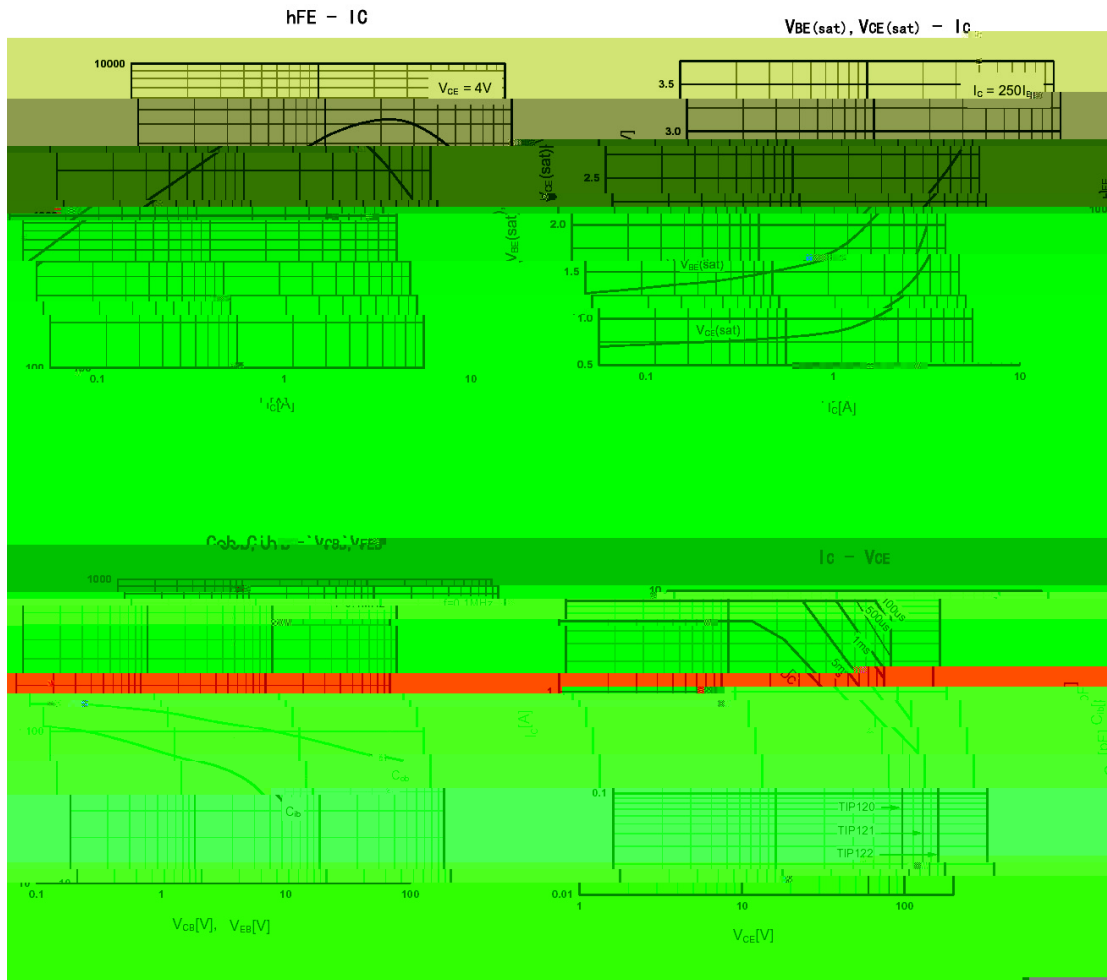
**/ Absolute Maximum Ratings(Ta=25 )**

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	$V_{CBO}$	100	V
Collector to Emitter Voltage	$V_{CEO}$	100	V
Emitter to Base Voltage	$V_{EBO}$	5.0	V
Collector Current - Continuous	$I_C$	5.0	A
Collector Current – Continuous(Pulse)	$I_{CP}$	8.0	A
Base Current	$I_B$	120	mA
Collector Power Dissipation	$P_C$	2.0	W
	$P_C(T_C=25 )$	60	W
Junction Temperature	$T_j$	150	
Storage Temperature Range	$T_{stg}$	-55 150	

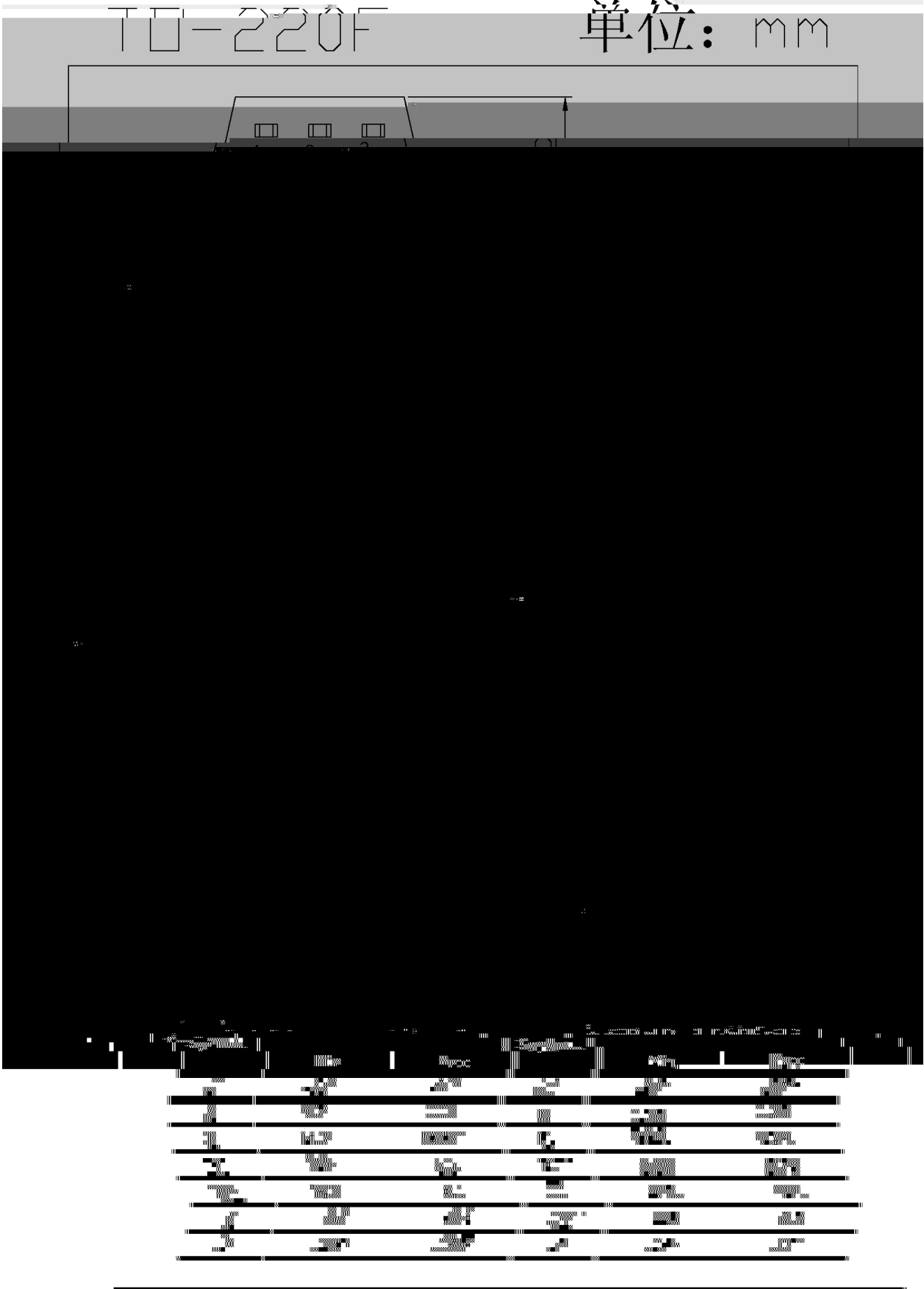
**/ Electrical Characteristics(Ta=25 )**

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector to Emitter Breakdown Voltage	$V_{CEO}$	$I_C=100mA$ $I_B=0$	100			V
Collector Cut-Off Current	$I_{CEO}$	$V_{CE}=50V$ $I_B=0$			0.5	mA
Collector Cut-Off Current	$I_{CBO}$	$V_{CB}=100V$ $I_E=0$			0.2	mA
Emitter Cut-Off Current	$I_{EBO}$	$V_{EB}=5.0V$ $I_C=0$			2.0	mA
DC Current Gain	$h_{FE(1)}$	$V_{CE}=3.0V$ $I_C=0.5A$	1000			
	$h_{FE(2)}$	$V_{CE}=3.0V$ $I_C=3.0A$	1000			
Collector to Emitter Saturation Voltage	$V_{CE(sat)(1)}$	$I_C=3.0A$ $I_B=12mA$			2.0	V
	$V_{CE(sat)(2)}$	$I_C=5.0A$ $I_B=20mA$			4.0	V
Base to Emitter Voltage	$V_{BE}$	$I_C=3.0A$ $V_{CE}=3.0V$			2.5	V
Collector output capacitance	$C_{ob}$	$V_{CB}=10V$ $I_E=0$ $f=0.1MHz$			200	pF

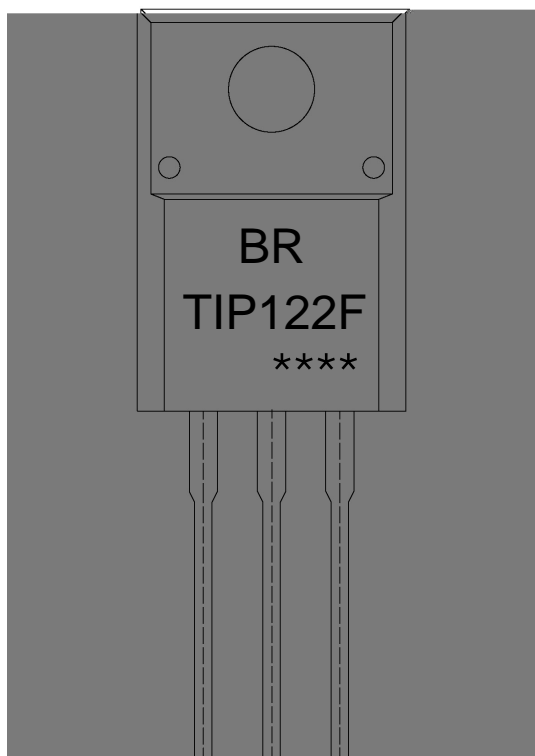
/ Electrical Characteristic Curve



/ Package Dimensions



/ Marking Instructions



BR

TIP122F

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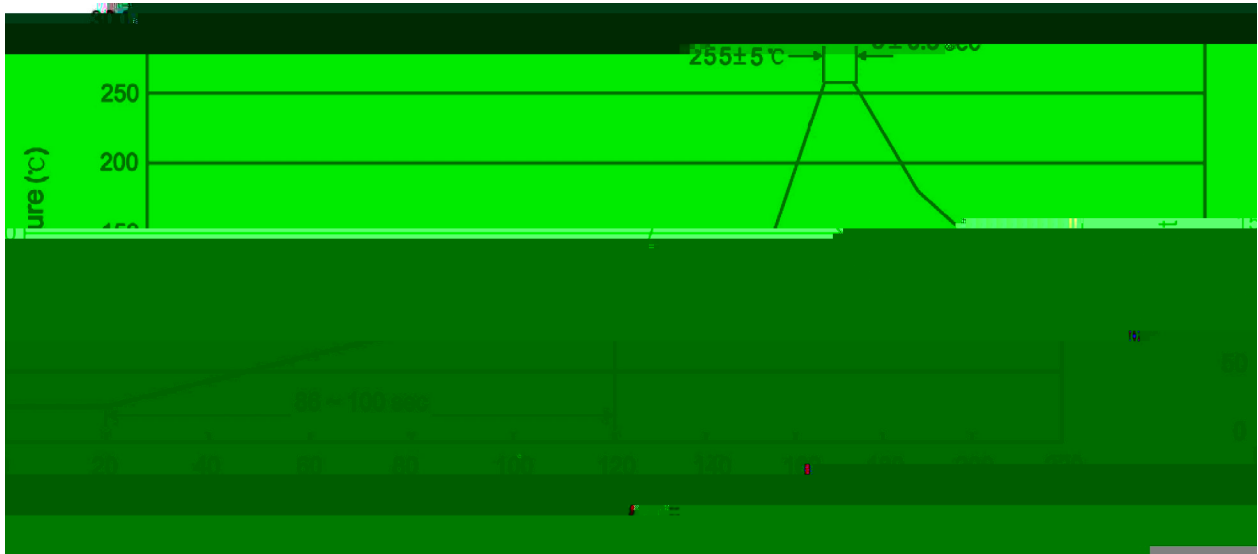
Note:

BR: Company Code.

TIP122F: Product Type Code.

\*\*\*\*: Lot No. Code, code change with Lot No.

( ) / Temperature Profile for Dip Soldering(Pb-Free)



Note:

- |   |        |     |            |          |   |
|---|--------|-----|------------|----------|---|
| 1 | 25     | 150 | 60         | 90sec;   | 1.Preheating:25~150 , Time:60~90sec.      |
| 2 | 255..5 |     | 5..0.5sec; |          | 2.Peak Temp.:255..5 , Duration:5..0.5sec. |
| 3 |        |     | 2          | 10 /sec. | 3. Cooling Speed: 2~10 /sec.              |

/ Resistance to Soldering Heat Test Conditions

270..5                      10...1 sec.                      Temp:270±5                      Time:10±1 sec

/ Packaging SPEC.

/ BULK

Package Type	Units					Dimension (unit mm3)		
	Units/Bag /	Bags/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Bag	Inner Box	Outer Box
TO-220F	200	10	2,000	5	10,000	135×190	237×172×102	560×245×195

/ TUBE

Package Type	Units					Dimension (unit mm3)		
	Units/Tube /	Tubes/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Tube	Inner Box	Outer Box
TO-220F	50	20	1,000	5	5,000	532×31.4×5.5	5ref24.9	